

Amendments to the Claims

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended): Filtering cartridge comprising:
 - a filtering pack [[(3)]] formed by a flat filtering medium [[(10)]];
 - a tubular sheath [[(2)]] with a perforated wall, surrounding said filtering pack (3) medium; and
 - two respective thermoplastic end caps (5, 6), in each of which there is embedded a portion of said filtering pack [[(3)]] situated along one of its edges, and in each of which there is embedded a portion of said sheath [[(2)]] situated along one of its edges [[(33)]];
 - characterised in that:
 - at least one said end cap (5, 6) has a first disc (16, 16') and a second disc (17, 17'), placed one above the other, each made from thermoplastic;
 - ~~it is in the~~ said second disc (17, 17') that ~~the~~ has said portion of the filtering pack [[(3)]] and [[the]] said sheath portion (2) are embedded;
 - [[the]] said first disc (16, 16') has a peripheral rim (19, 19') which surrounds [[the]] said portion of the sheath [[(2)]]; and
 - [[the]] said sheath [[(2)]] has a shoulder [[(34)]] opposite the edge of the said rim (19, 19') of the first disc (16, 16').

3. (Currently amended): ~~Cartridge~~ The cartridge according to Claim [[2]] 1, characterized in wherein said portion of the sheath forms part of a neck thinner than the rest of the wall of the sheath and [[that]] said neck [[(32)]] has a thickness which increases [[as]] from the edge [[(33)]] of the sheath [[(2)]].
4. (Currently amended): ~~Cartridge~~ The cartridge according to either one of Claims 2 or 3 Claim 1, characterized in that wherein said portion of the sheath forms part of a neck thinner than the rest of the wall of the sheath and said neck [[(32)]] is situated between the edge [[(33)]] and said shoulder [[(34)]] of the sheath [[(2)]].
5. (Currently amended): ~~Cartridge~~ The cartridge according to Claim [[4]] 1, characterized in that wherein the edge [[(33)]] of the sheath [[(2)]] extends from an internal surface, situated in continuity with the general internal surface of the sheath [[(2)]], to a frustoconical surface [[(36)]] which extends from the edge [[(33)]] to said shoulder [[(34)]], which extends from said frustoconical surface [[(36)]] to the general external surface of the sheath [[(2)]].
6. (Currently amended): ~~Cartridge~~ The cartridge according to any one of Claims 1 to 5 Claim 1, characterized in that wherein said rim (19, 19') of the first disc (16, 16') extends projecting from a plate (18, 18').
7. (Currently amended): ~~Cartridge~~ The cartridge according to Claim 6, characterized in that 1, wherein the thickness of said rim (19, 19') increases [[as]] from its edge [[(35)]].

8. (Currently amended): ~~Cartridge~~ The cartridge according to Claim 7, ~~characterised in that 1, wherein~~ the edge of said rim (19, 19') extends from an external lateral surface, having substantially the same diameter as the general external surface of the sheath [(2)], to a frustoconical surface extending from this rim to said plate (18, 18').
9. (Currently amended): ~~Cartridge~~ The cartridge according to ~~any one of Claims 1 to 8, characterised in that Claim 1, wherein~~ said shoulder [(34)] on the sheath [(2)] and the edge [(35)] of said rim (19, 19') has substantially the same width.
10. (Currently amended): ~~Cartridge~~ The cartridge according to ~~any one of Claims 1 to 9, characterised in that Claim 1, wherein~~ said rim (19, 19') faces said portion of the sheath [(2)] embedded in the second disc (17, 17') through a surface [(37)] which is frustoconical.
11. (Currently amended): ~~Cartridge~~ The cartridge according to ~~any one of Claims 1 to 10, characterised in that Claim 1, wherein~~ said portion of the sheath [(2)] embedded in the second disc (17, 17') faces said rim (19, 19') through a surface [(36)] which is frustoconical.
12. (Currently amended): ~~Cartridge~~ The cartridge according to ~~any one of Claims 1 to 11, characterised in that Claim 1, wherein~~ said portion of the sheath [(2)] embedded in the second disc (17, 17') and said rim (19, 19') face each other through a respective frustoconical surface (36, 37), said respective frustoconical surfaces (36, 37) being similar.
13. (Currently amended): ~~Cartridge~~ The cartridge according to ~~any one of Claims 1 to 12, characterised in that Claim 1, wherein~~ said rim (19, 19') has interruptions [(20)].

14. (Currently amended): ~~Cartridge~~ The cartridge according to Claim 13, characterised in that ~~1, wherein said rim has interruptions and said~~ interruptions [[(20)]] are disposed at regular intervals and each extends over an arc with the same angle at the apex.

15. (Currently amended): ~~Cartridge~~ The cartridge according to Claim 14, characterised in that ~~1, wherein said rim has interruptions and said rim (19,~~ ~~19')~~ has four said interruptions [[(20)]] each extending over an arc whose angle at the apex is approximately 30°.

16. (Currently amended): ~~Cartridge~~ The cartridge according to any one of Claims 1 to 15, characterised in that Claim 1, wherein said first disc (16, 16') has, opposite to said second disc(17, 17'), an annular rib(21, 21').

17. (Currently amended): ~~Cartridge~~ The cartridge according to any one of Claims 1 to 16, characterised in that Claim 1, wherein at least one said end cap [[(6)]] having a first disc (16') and a second disc (17') placed one above the other, has a central orifice [[(22)]].

18. (Currently amended): ~~Cartridge~~ The cartridge according to Claim 17, characterised in that Claim 1, wherein the first disc (16') of the cap (6) having has a central orifice (22), and has a rim (19A) around said central orifice [[(22)]].

19. (Currently amended): ~~Cartridge~~ The cartridge according to any one of Claims 1 to 18, characterised in that Claim 1, wherein the first disc of the cap having a central orifice, has a rim around said central orifice, it also comprises a tubular core [[(4)]] with a perforated wall, surrounded by said filtering medium pack (3) and having, along at least one edge [[(40)]], a portion embedded in said second disc(17, 17').

20. (Currently amended): ~~Cartridge~~ The cartridge according to ~~Claim 19~~, ~~characterised in that~~ Claim 1, wherein each said portion of the core [(4)] forms part of a neck [(38)] which is thinner than the rest of the core [(4)].
21. (Currently amended): ~~Cartridge~~ The cartridge according to Claim 20, ~~characterised in that~~ 1, wherein the edge [(40)] of the core [(4)] extends from an internal surface, situated in continuity with the general internal surface of the core [(2)] to a frustoconical surface [(39)] which extends from the edge [(40)] to the general external surface of the core [(4)].
22. (Currently amended): ~~Cartridge~~ The cartridge according to ~~any one of Claims 1 to 21, characterised in that~~ Claim 1, wherein the melt flow rate at 230°C and under 2.16 kg, according to the ASTM D1238 or ISO 1133 test method, is lower for the material of the first disc (16, 16') than for the material of the second disc (17, 17').
23. (Currently amended): ~~Cartridge~~ The cartridge according to ~~Claim 22, characterised in that~~ Claim 1, wherein said melt flow rate is no more than 15 g per 10 minutes for the material of the first disc (16, 16').
24. (Currently amended): ~~Cartridge~~ The cartridge according to ~~Claim 23, characterised in that~~ Claim 1, wherein said melt flow rate of the first disc (16, 16') is between 4.2 and 6.5 g per 10 minutes.
25. (Currently amended): ~~Cartridge~~ The cartridge according to ~~any one of Claims 22 to 24, characterised in that~~ Claim 1, wherein said melt flow rate of the second disc (17, 17') is between 25 and 100 g per 10 minutes.

26. (Currently amended): ~~Cartridge~~The cartridge according to ~~Claim~~25, ~~characterised in that~~Claim 1, ~~wherein~~ said melt flow rate of the second disc (17, 17') is between 65 and 75 g per 10 minutes.

27. (Currently amended): ~~Cartridge~~The cartridge according to ~~any one of Claims 1 to 26, characterised in that~~Claim 1, ~~wherein~~ said end cap (5, 6) comprising a first disc (16, 16') and a second disc (17, 17') is moulded by bi-injection.

28. (Currently amended): ~~Cartridge~~The cartridge according to Claim 27, ~~characterised in that~~1, wherein said second disc (17, 17') is moulded onto said first disc (16, 16').

29. (Currently amended): ~~Cartridge~~The cartridge according to ~~any one of Claims 1 to 28, characterised in that~~Claim 1, ~~wherein~~ said first disc (16, 16') and said second disc (17, 17') are made from polypropylene.

30. (Currently amended): ~~Cartridge~~The cartridge according to ~~Claim~~29, ~~characterised in that~~Claim 1, ~~wherein~~ said first disc (16, 16') is made from a homopolymer polypropylene ~~whilst~~while the second disc (17, 17') is made from a copolymer polypropylene.

31. (Currently amended): ~~Cartridge~~The cartridge according to ~~any one of Claims 1 to 30, characterised in that~~Claim 1, ~~wherein~~ said [[flat]] filtering medium (10) ~~forming~~ ~~said~~ forms a filtering pack (3) ~~comprises~~containing a filtering membrane [[(11)]] and two support layers (14A, 14B) sandwiching said membrane.

32. (Currently amended): ~~Cartridge~~ The cartridge according to ~~Claim 31~~, ~~characterised in that~~ Claim 1, wherein said filtering medium [(10)] also comprises a thermoplastic ribbon [(12)] disposed in the vicinity of each edge [(13)] of said medium membrane (11).

33. (Currently amended): ~~Cartridge~~ The cartridge according to either one of ~~Claims 31 or 32~~, ~~characterised in that~~ Claim 1, wherein said filtering medium is at least a membrane which is made from polyvinylidene fluoride (PVDF).

34. (Currently amended): ~~Cartridge~~ The cartridge according to any one of ~~Claims 31 to 33~~, ~~characterised in that~~ Claim 1, wherein said filtering medium contains one or more support layers, said one or more support layers are made from thermoplastic.

35. (Currently amended): ~~Cartridge~~ The cartridge according to any one of ~~Claims 31 to 34~~, ~~characterised in that~~ Claim 1, wherein said layers (14A, 14B) and a thermoplastic ribbon [(12)] disposed in the vicinity of each edge [(13)] of said medium membrane (11) are made from polypropylene.

36. (Currently amended): ~~Cartridge~~ The cartridge according to any one of ~~Claims 31 to 35~~, ~~characterised in that~~ Claim 1, wherein each said end cap (5, 6) has a said first disc (16, 16') and a said second disc (17, 17'), and cooperates in a similar fashion with the sheath [(2)] and the filtering medium pack (3).